

US DEPARTMENT OF AGRICULTURE
FOREST SERVICE

5220



Northeastern Area
State & Private Forestry
DIVISION OF FOREST PEST CONTROL



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Aerial Survey of Large Aspen Tortrix
Defoliation in Minnesota

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INTRODUCTION

An aerial survey of northern Minnesota in cooperation with the Minnesota Department of Agriculture was made July 9-10, 1969, to determine the area affected and degrees of defoliation by the Large Aspen Tortrix (Choristoneura conflictana [Wlk.]).

Previous scattered light defoliation of aspen was reported in Koochiching and St. Louis counties in 1968 by the Minnesota Department of Agriculture.

METHODS

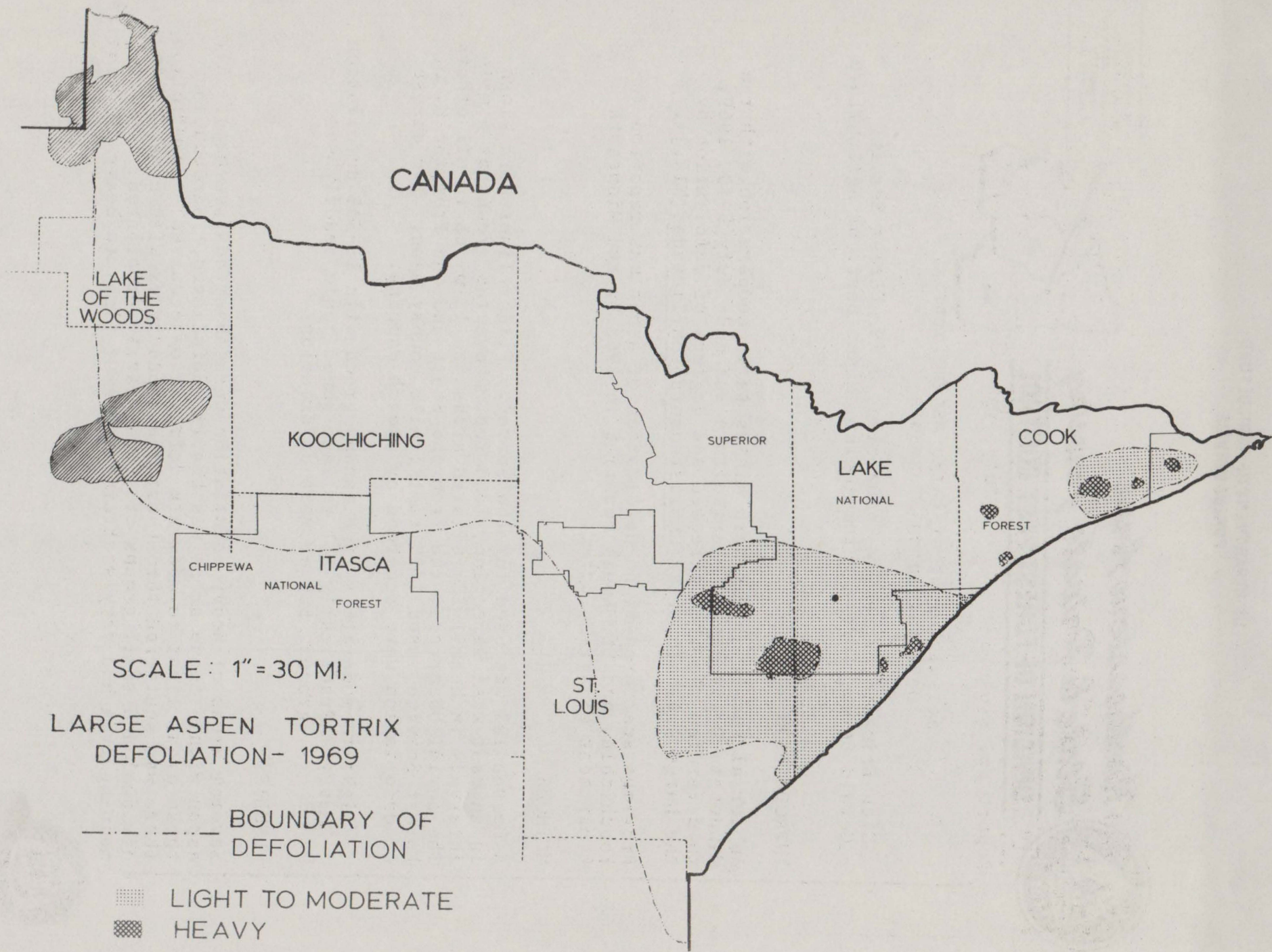
A Cessna 182 was used for the survey. Flight lines were flown in an east-west direction, 1000 feet above the ground at 6 mile intervals in heavily defoliated areas and 12 miles in all others. The aerial observers, two from the State and one from the U. S. Forest Service, used 1/2" to the mile county maps. Two classes of defoliation were recorded by sketch mapping.

Light to moderate - tree canopy green with 15-50% defoliation
Heavy - Practically all foliage gone, could readily see ground, 50% or more defoliation

RESULTS

Several areas of heavy defoliation were observed (see map). All aspen within these areas was heavily defoliated. Surrounding these areas light to moderate defoliation occurred. Defoliation there was scattered throughout the aspen types with numerous individual and small groups of trees heavily defoliated. The remaining area had very scattered spots of light to heavy defoliation.





CANADA

LAKE
OF THE
WOODS

KOOCHICHING

SUPERIOR

COOK

LAKE
NATIONAL

CHIPPEWA

ITASCA
NATIONAL
FOREST

FOREST

ST.
LOUIS

SCALE: 1" = 30 MI.

LARGE ASPEN TORTRIX
DEFOLIATION - 1969

BOUNDARY OF
DEFOLIATION

□ LIGHT TO MODERATE
■ HEAVY